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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/289,168	04/09/99	SAIDA	K 4041J000216

EXAMINER

QM02/1019

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ART UNIT	PAPER NUMBER
3743	11

DATE MAILED: 10/19/00

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 7-11-2000.

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire _____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-28 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-28 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

Applicants' response has been carefully considered. While the Examiner does not, for the most part, agree with applicants comments regarding Herrmann (in particular the analysis of why Hermann's tubes are horizontally oriented instead of angled downward in the plane of the heat exchanger), of more concern to the Examiner is Denso's USP 5,954,578 disclosing in Figure 6 (legended prior art) and in Figure 1 a system which introduces air from a blower into a plenum in a direction perpendicular to the longitudinal direction of the tubes.

This is extremely pertinent prior art to what is being claimed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirota '107 or Ito '368 in view of Takasaki '578 and Hermann (Fig. 6).

Shirota '107 or Ito '368 show all of the pertinent patentable features except the introduction of air into the plenum in a direction perpendicular to the longitudinal direction of the evaporator tubes. Instead, in Shirota and Ito, the air is introduced at the ~~side~~ side of the evaporator core in which the upper header in located , in a direction parallel to the longitudinal direction of the evaporator tubes.

To have reoriented the air entry in Shirota or Ito to be perpendicular to the tubes in the evaporator core would have been obvious to one of ordinary skill in considering Takasaki and

Figure 6 of Hermann which together teach this configuration. As discussed in Hermann, the unit can be made more compact and still house a fairly large evaporator. Applicants state in their comments in Paper No. 6, page 9, lines 7-9, and reiterate in Paper No. 9, pages 5-6 that in Hermann "an air-blowing direction under the heat exchange element (5) is parallel to the longitudinal direction of the tubes". The Examiner has re-read Hermann three times and is at a loss as to how applicants can make this factual assertion, nor ~~whey~~ why they insist the parallel lines in Hermann must denote tubes rather than fins.

It is submitted there is no tube direction disclosed in Hermann. Herman simply teaches the same orientation of fan air supply direction relative to the tilted evaporator core orientation that applicants' disclose and claim. It is submitted that the tubes shown in Shirota and Ito are both oriented parallel to the tilted direction of the evaporator core as disclosed and claimed by applicants and, with regard to the Examiner's rejection, there is no reason why the downward orientation of those tubes in the direction core itself would be changed in the modification the Examiner has proposed. The Examiner only proposes changing the orientation of the fan relative to the tilted tube core in the manner taught by Figure 6 of Hermann. Takasaki, using applicants' own logic clearly discloses introduction of air in a direction perpendicular to the longitudinal direction of the tubes forming the evaporator core. The fact that Takasaki's core is vertical as opposed to substantially horizontal does not change the air flow.

Regarding claims 2-17, 20 and 24, the direction of the casing orientation in a vehicle is not a meaningful limitation in a claim (see claims 1 and 8) drawn to the air conditioner per se. If the

combination of a vehicle and air conditioner is being claimed, please change claims 1 and 8 to clearly recite the combination. Absent such a combination claim or a "method-of-use" claim, matters of intended orientation in some unclaimed use in some unclaimed vehicle are extended no patentable weight. Notwithstanding, what the Examiner has just stated, he can see no reason why the modified apparatus of Ito/Takasaki/Hermann or Shirota/Takaski/Hermann undergoes any metamorphosis into some new, novel and unobvious apparatus merely by shifting the orientation of the components and/or the casing to make it conveniently fit under the dashboard of the vehicle (if a vehicle is even being claimed). In the forthcoming reply to this action, please address in detail why each of claims 2-17, 20 and 24, in so far as orientation of the air conditioning apparatus within the vehicle is being claimed, defines patentable subject matter. It appears to the Examiner that this is just routine engineering design. If some part of the unit doesn't fit (e.g. it interferes with the steering column etc.) then it is moved or reoriented (e.g. move the fan or reorient the casing) until it does fit. It is submitted that the orientations claimed in claims 2-17, 20 and 24 are no more than the orientations which happen to work in the vehicle that applications' device is being fitted into. If it is anything more than this, please provide evidence commensurate in scope with these claims to back-up any assertions made.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to John Ford at telephone number (703) 308-2636.

John K. Ford
Primary Examiner

J. FORD:LM
OCTOBER 02, 2000